

WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:  
a semiconductor element;  
a plurality of lead wires connected to a plurality  
5 of connecting electrodes of said semiconductor element;  
at least a single dummy lead wire that does not  
include an outer lead portion for electrically  
connecting said semiconductor element to an external  
circuit of said semiconductor element;  
10 an insulating film having an opening portion for  
accommodating said semiconductor element and serving  
to support said lead wires connected to the connecting  
electrodes of the semiconductor element and said dummy  
lead wire; and  
15 a resin molding covering the connecting portion  
between the tip portions of the lead wires and the  
connecting electrodes and the tip portion of said dummy  
lead wire within the opening portion of said insulating  
film.  
20 2. The semiconductor device according to claim 1,  
wherein the tip portion of the dummy lead wire covered  
with said resin molding is positioned between the  
peripheral portion of said opening portion and the  
peripheral portion of the semiconductor element  
25 arranged within the opening portion.  
3. The semiconductor device according to claim 1,  
wherein the tip portion of said dummy lead wire extends

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9. The semiconductor device according to claim 2, wherein at least two dummy lead wires are arranged in said semiconductor device and the tip portions of two

adjacent dummy lead wires are connected to each other.

10. The semiconductor device according to claim 3,  
wherein said dummy lead wire is arranged in a large  
space having at least twice the minimum pitch of the  
arrangement of said lead wires.

11. The semiconductor device according to claim 3,  
wherein at least two dummy lead wires are arranged in  
said semiconductor device and the tip portions of two  
adjacent dummy lead wires are connected to each other.

12. The semiconductor device according to claim 3,  
wherein said dummy lead wires are formed in two sides,  
which face each other, of said semiconductor element,  
and the tip portions of the dummy lead wires positioned  
to face each other are connected to each other.

13. The semiconductor device according to claim 3,  
wherein said semiconductor element includes a dummy  
connection electrode that is not electrically connected  
to an internal circuit, and the tip of said dummy lead  
wire is connected to said dummy connection electrode.

14. The semiconductor device according to claim 4,  
wherein at least two dummy lead wires are arranged in  
said semiconductor device and the tip portions of two  
adjacent dummy lead wires are connected to each other.

15. The semiconductor device according to claim 4,  
wherein said dummy lead wires are formed in two sides,  
which face each other, of said semiconductor element,  
and the tip portions of the dummy lead wires positioned

to face each other are connected to each other.

16. The semiconductor device according to claim 4,  
wherein said semiconductor element includes a dummy  
connection electrode that is not electrically connected  
5 to an internal circuit, and the tip of said dummy lead  
wire is connected to said dummy connection electrode.

17. The semiconductor device according to claim 7,  
wherein said dummy connection electrode is electrically  
connected to a power source line or a ground line.

10 18. The semiconductor device according to claim 8,  
wherein at least two dummy lead wires are arranged in  
said semiconductor device and the tip portions of two  
adjacent dummy lead wires are connected to each other.

15 19. The semiconductor device according to claim 8,  
wherein said dummy lead wires are formed in two sides,  
which face each other, of said semiconductor element,  
and the tip portions of the dummy lead wires positioned  
to face each other are connected to each other.

20 20. The semiconductor device according to claim 8,  
wherein said semiconductor element includes a dummy  
connection electrode that is not electrically connected  
to an internal circuit, and the tip of said dummy lead  
wire is connected to said dummy connection electrode.

25 21. The semiconductor device according to  
claim 10, wherein at least two dummy lead wires are  
arranged in said semiconductor device and the tip  
portions of two adjacent dummy lead wires are connected

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Parameter	Value	Unit
$\alpha$	0.001	
$\beta$	0.001	
$\gamma$	0.001	
$\delta$	0.001	
$\epsilon$	0.001	
$\zeta$	0.001	
$\eta$	0.001	
$\theta$	0.001	
$\iota$	0.001	
$\kappa$	0.001	
$\lambda$	0.001	
$\mu$	0.001	
$\nu$	0.001	
$\xi$	0.001	
$\omicron$	0.001	
$\pi$	0.001	
$\rho$	0.001	
$\sigma$	0.001	
$\tau$	0.001	
$\upsilon$	0.001	
$\phi$	0.001	
$\chi$	0.001	
$\psi$	0.001	
$\omega$	0.001	
$\Omega$	0.001	
$\Theta$	0.001	
$\Upsilon$	0.001	
$\Phi$	0.001	
$\Psi$	0.001	
$\Xi$	0.001	
$\Omicron$	0.001	
$\Pi$	0.001	
$\Rho$	0.001	
$\Sigma$	0.001	
$\Tau$	0.001	
$\Upsilon$	0.001	
$\Phi$	0.001	
$\Psi$	0.001	
$\Xi$	0.001	
$\Omicron$	0.001	
$\Pi$	0.001	
$\Rho$	0.001	
$\Sigma$	0.001	
$\Tau$	0.001	
$\Upsilon$	0.001	
$\Phi$	0.001	
$\Psi$	0.001	
$\Xi$	0.001	
$\Omicron$	0.001	
$\Pi$	0.001	
$\Rho$	0.001	
$\Sigma$	0.001	
$\Tau$	0.001	
$\Upsilon$	0.001	
$\Phi$	0.001	
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$\Xi$	0.001	
$\Omicron$	0.001	
$\Pi$	0.001	
$\Rho$	0.001	
$\Sigma$	0.001	
$\Tau$	0.001	
$\Upsilon$	0.001	
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$\Pi$	0.001	
$\Rho$	0.001	
$\Sigma$	0.001	
$\Tau$	0.001	
$\Upsilon$	0.001	
$\Phi$	0.001	